


INFORMATION DISCLOSURE CITATION IN AN APPLICATION (PTO-1449)				ATTY. DOCKET NO. 005916 USA/ FPS/MMCS/MC		SERIAL NO. 09/998,384	
				APPLICANT Young Joseph PAIK			
				FILING DATE November 30, 2001		GROUP 2812 2823	
U.S. PATENT DOCUMENTS							
EXAMINER'S INITIALS	PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE	
K.N.	6,381,564 B1	04/30/02	David et al.	703	22	05/03/99	
K.N.	2002/0183986 A1	12/05/02	Stewart et al.	703	2	05/30/01	
K.N.	2003/0154062 A1	08/14/03	Daft et al.	703	5	10/15/01	
K.N.	6,529,789 B1	03/04/03	Campbell et al.	700	115	03/14/02	
K.N.	6,774,998 B1	08/10/04	Wright et al.	356	401	12/27/01	
K.N.	6,751,518 B1	06/15/04	Sonderman et al.	700	121	04/29/02	
K.N.	6,678,570 B1	01/13/04	Pasadyn et al.	700	109	06/26/01	
K.N.	6,735,492 B2	05/11/04	Conrad et al.	700	121	07/19/02	
EXAMINER 				DATE CONSIDERED 05/04/05			

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SHEET 1 OF 5

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U.S. PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
K.N.	5,369,544	11/29/94	Mastrangelo	361	283.4	04/05/93

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

K.N.	March 30, 2004. Written Opinion for PCT/US02/19062.

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EXAMINER'S INITIALS	PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
K.N.	4,957,605	09/18/90	Hurwitt et al.	204	192.12	04/17/89
	5,240,552	08/31/93	Yu et al.	156	636	12/11/91
	5,444,837	08/22/95	Bomans et al.	395	140	12/29/93
	5,665,214	09/09/97	Iturralde	204	298.03	05/03/95
	5,695,810	12/09/97	Dubin et al.	427	96	11/20/96
	5,824,599	10/20/98	Schacham-Diamond et al.	438	678	01/16/96
	5,825,356	10/20/98	Habib et al.	345	338	03/18/96
	5,831,851	11/03/98	Eastburn et al.	364	167.01	03/21/95
	5,838,951	11/17/98	Song	395	500	08/28/96
	5,859,777	01/12/99	Yokoyama et al.	364	472.02	05/13/97
	5,871,805	02/16/99	Lemelson	427	8	04/08/96
	5,943,550	08/24/99	Fulford, Jr. et al.	438	14	03/29/96
	6,012,048	01/04/00	Gustin et al.	705	39	05/30/97
	6,037,664	03/14/00	Zhao et al.	257	758	03/31/98
	6,059,636	05/09/00	Inaba et al.	451	5	07/09/98
	6,096,649	08/01/00	Jang	438	687	10/25/99
	6,100,195	08/08/00	Chan et al.	438	687	12/28/98
	6,114,238	09/05/00	Liao	438	648	05/20/98
	6,150,270	11/21/00	Matsuda et al.	438	687	01/07/99
	6,157,864	12/05/00	Schwenke et al.	700	79	05/08/98
	6,181,013 B1	01/30/01	Liu et al.	257	762	03/13/00
	6,212,961 B1	04/10/01	Dvir	73	86.8	02/11/99
	6,226,563 B1	05/01/01	Lim	700	121	09/04/98
	6,228,280 B1	05/08/01	Li et al.	216	84	05/06/98
	6,237,050 B1	05/22/01	Kim et al.	700	19	09/04/98
	2001/0006873 A1	07/05/01	Moore	451	5	02/13/01
	6,259,160 B1	07/10/01	Lopatin et al.	257	762	04/21/99
K.N.	6,281,127 B1	08/28/01	Shue	438	691	04/15/99

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K.N.	6,317,643 B1	11/13/01	Dmochowski	700	121	03/31/99
	6,339,727 B1	01/15/02	Ladd	700	28	12/21/98
	6,355,559 B1	03/12/02	Havemann et al.	438	643	11/03/00
	6,391,780 B1	05/21/02	Shih et al.	438	692	08/23/99
	6,417,014 B1	07/09/02	Lam et al.	438	14	10/19/99
	6,427,093 B1	07/30/02	Toprac	700	121	10/07/99
	6,432,728 B1	08/13/02	Tai et al.	438	5	10/16/00
	6,449,524 B1	09/10/02	Miller et al.	700	121	01/04/00
	6,455,415 B1	09/24/02	Lopatin et al.	438	628	04/16/01
	2002/0165636 A1	11/07/02	Hasan	700	121	04/24/02
	6,484,064 B1	11/19/02	Campbell	700	100	10/05/99
	6,495,452 B1	12/17/02	Shih	438	643	08/18/99
	2002/0193899 A1	12/19/02	Shanmugasundram et al.	700	108	05/01/02
	2003/0017256 A1	01/23/03	Shimane	427	9	06/12/02
	6,515,368 B1	02/04/03	Lopatin et al.	257	762	12/07/01
	6,517,414 B1	02/11/03	Tobin et al.	451	8	03/10/00
	6,528,409 B1	03/04/03	Lopatin et al.	438	618	04/29/02
	6,537,912 B1	03/25/03	Agarwal	438	687	08/25/00
	6,580,958 B1	06/17/03	Takano	700	121	11/22/99
	6,605,549 B2	08/12/03	Leu et al.	438	758	09/29/01
	6,607,976 B2	08/19/03	Chen et al.	438	627	09/25/01
	6,609,946 B1	08/26/03	Tran	451	5	07/14/00
	6,616,513 B1	09/09/03	Osterheld	451	56	04/05/01
	6,624,075 B1	09/23/03	Lopatin et al.	438	687	11/05/02
	6,630,741 B1	10/07/03	Lopatin et al.	257	762	12/07/01
	6,660,633 B1	12/09/03	Lopatin et al.	438	687	02/26/02
	6,708,074 B1	03/16/04	Chi et al.	700	121	08/11/00
	6,708,075 B2	03/16/04	Sonderman et al.	700	121	11/16/01
K.N.	6,728,587 B2	04/27/04	Goldman et al.	700	108	12/27/00

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EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						Yes	No
K.N.	EP 0 932 195 A1	07/28/99	EP			X	
K.N.	EP 1 083 470 A2	03/14/01	EP			X	
K.N.	GB 2 365 215 A	02/13/02	GB			X	

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K.N.	Sun, S.C. 1998. "CVD and PVD Transition Metal Nitrides as Diffusion Barriers for Cu Metallization." <i>IEEE</i> . pp. 243-246.
K.N.	Tagami, M., A. Furuya, T. Onodera, and Y. Hayashi. 1999. "Layered Ta-nitrides (LTN) Barrier Film by Power Swing Sputtering (PSS) Technique for MOCVD-Cu Damascene Interconnects." <i>IEEE</i> . pp. 635-638.
K.N.	Yamagishi, H., Z. Tokei, G.P. Beyer, R. Donaton, H. Bender, T. Nogami, and K. Maex. 2000. "TEM/SEM Investigation and Electrical Evaluation of a Bottomless I-PVD TA(N) Barrier in Dual Damascene" (Abstract). <i>Advanced Metallization Conference 2000</i> . San Diego, CA.
K.N.	Eisenbraun, Eric, Oscar van der Straten, Yu Zhu, Katharine Dovidenko, and Alain Kaloyeros. 2001. "Atomic Layer Deposition (ALD) of Tantalum-Based Materials for Zero Thickness Copper Barrier Applications" (Abstract). <i>IEEE</i> . pp. 207-209.
K.N.	Smith, S.R., K.E. Elers, T. Jacobs, V. Blaschke, and K. Pfeifer. 2001. "Physical and Electrical Characterization of ALD Tin Used as a Copper Diffusion Barrier in 0.25 mum, Dual Damascene Backend Structures" (Abstract). <i>Advanced Metallization Conference 2001</i> . Montreal, Quebec.
K.N.	Kim, Y.T. and H. Sim. 2002. "Characteristics of Pulse Plasma Enhanced Atomic Layer Deposition of Tungsten Nitride Diffusion Barrier for Copper Interconnect" (Abstract). <i>IEIC Technical Report</i> . Vol. 102, No. 178, pp. 115-118.
K.N.	Elers, Kai-Erik, Ville Saanila, Pekka J. Soininen, Wei-Min Li, Juhana T. Kostamo, Suvi Haukka, Jyrki Juhanoja, and Wim F.A. Besling. 2002. "Diffusion Barrier Deposition on a Copper Surface by Atomic Layer Deposition" (Abstract). <i>Advanced Materials</i> . Vol. 14, No. 13-14, pp. 149-153.
K.N.	Peng, C.H., C.H. Hsieh, C.L. Huang, J.C. Lin, M.H. Tsai, M.W. Lin, C.L. Chang, Winston S. Shue, and M.S. Liang. 2002. "A 90nm Generation Copper Dual Damascene Technology with ALD TaN Barrier." <i>IEEE</i> . pp. 603-606.
K.N.	Van der Straten, O., Y. Zhu, E. Eisenbraun, and A. Kaloyeros. 2002. "Thermal and Electrical Barrier Performance Testing of Ultrathin Atomic Layer Deposition Tantalum-Based Materials for Nanoscale Copper Metallization." <i>IEEE</i> . pp. 188-190.
K.N.	Wu, Z.C., Y.C. Lu, C.C. Chiang, M.C. Chen, B.T. Chen, G.J. Wang, Y.T. Chen, J.L. Huang, S.M. Jang, and M.S. Liang. 2002. "Advanced Metal Barrier Free Cu Damascene Interconnects with PECVD Silicon Carbide Barriers for 90/65-nm BEOL Technology." <i>IEEE</i> . pp. 595-598.
K.N.	July 25, 2003. International Search Report for PCT/US02/24858.
K.N.	April 9, 2004. Written Opinion for PCT/US02/19116.
K.N.	April 22, 2004. Office Action for U.S. Serial No. 09/998,372, filed November 30, 2001.

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K.N.	April 28, 2004. Written Opinion for PCT/US02/19117.
K.N.	April 29, 2004. Written Opinion for PCT/US02/19061.
K.N.	May 5, 2004. Office Action for U.S. Serial No. 09/943,955, filed August 31, 2001.
K.N.	May 5, 2004. International Preliminary Examination Report for PCT/US01/27406.
K.N.	May 28, 2004. Office Action for U.S. Serial No. 09/943,383, filed August 31, 2001.
K.N.	June 3, 2004. Office Action for U.S. Serial No. 09/928,474, filed August 14, 2001.
K.N.	June 23, 2004. Office Action for U.S. Serial No. 10/686,589, filed October 17, 2003.
K.N.	June 30, 2004. Office Action for U.S. Serial No. 09/800,980, filed March 8, 2001.
K.N.	July 12, 2004. Office Action for U.S. Serial No. 10/173,108, filed June 8, 2002.


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FOREIGN PATENT DOCUMENTS							
EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						Yes	No
K.N.	0 397 924 A1 ✓	11/22/90	Europe	/	/	X	
OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)							
K.N.	Rocha, Joao and Carlos Ramos. September 12, 1994. "Task Planning for Flexible and Agile Manufacturing Systems." <i>Intelligent Robots and Systems '94. Advanced Robotic Systems and the Real World, IROS '94. Proceedings of the IEEE/RSJ/GI International Conference on Munich, Germany 12-16 Sept. 1994.</i> New York, New York: IEEE. pp. 105-112.						
✓	March 15, 2002. Office Action for U.S. Serial No. 09/469,227, filed December 22, 1999.						
✓	March 29, 2002. Office Action for U.S. Serial No. 09/363,966, filed July 29, 1999.						
✓	June 20, 2002. Office Action for U.S. Serial No. 09/619,044, filed July 19, 2000.						
✓	September 26, 2002. Office Action for U.S. Serial No. 09/637,620, filed August 11, 2000.						
✓	October 23, 2002. Office Action for U.S. Serial No. 09/469,227, filed December 22, 1999.						
✓	December 17, 2002. Office Action for U.S. Serial No. 09/363,966, filed July 29, 1999.						
✓	February 10, 2003. Office Action for U.S. Serial No. 09/619,044, filed July 19, 2000.						
✓	April 9, 2003. Office Action for U.S. Serial No. 09/928,474, filed August 14, 2001.						
✓	May 8, 2003. Office Action for U.S. Serial No. 09/637,620, filed August 11, 2000.						
✓	June 18, 2003. Office Action for U.S. Serial No. 09/655,542, filed September 6, 2000.						
✓	August 8, 2003. International Search Report for PCT/US03/08513.						
✓	August 25, 2003. Office Action for U.S. Serial No. 10/100,184, filed March 19, 2002.						
✓	September 15, 2003. Office Action for U.S. Serial No. 09/928,474, filed August 14, 2001.						
✓	November 5, 2003. Office Action for U.S. Serial No. 10/172,977, filed June 18, 2002.						
✓	December 1, 2003. Office Action for U.S. Serial No. 10/173,108, filed June 18, 2002.						
✓	December 11, 2003. Office Action for U.S. Serial No. 09/943,383, filed August 31, 2001.						
✓	December 16, 2003. International Search Report for PCT/US03/23964.						
✓	January 20, 2004. Office Action for U.S. Serial No. 09/927,444, filed August 13, 2001.						
✓	January 23, 2004. International Search Report for PCT/US02/24860.						
K.N.	February 2, 2004. Office Action for U.S. Serial No. 09/363,966, filed July 29, 1999.						
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EXAMINER'S INITIALS	PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE	
K.N.	4,207,520	06/10/80	Flora et al.	324	238	04/06/78	
	4,209,744	06/24/80	Gerasimov et al.	324	241	03/27/78	
	4,609,870	09/02/86	Lale et al.	324	225	09/13/84	
	4,755,753	07/05/88	Chern	324	233	07/23/86	
	5,427,878	06/27/95	Corliss	430	30	05/16/94	
	5,534,289	07/09/96	Bilder et al.	427	8	01/03/95	
	5,867,389	02/02/99	Hamada et al.	264	418.28	11/26/96	
	6,041,263	03/21/00	Boston et al.	700	32	10/01/97	
	6,077,412	06/20/00	Ting et al.	205	143	10/30/98	
	6,271,670	08/07/01	Caffey	324	642	02/08/99	
	6,400,162	06/04/02	Mallory et al.	324	688	07/21/00	
	US 2002/0077031	06/20/02	Johansson et al.	451	6	07/06/01	
	6,442,496	08/27/02	Pasady et al.	702	83	08/08/00	
	6,563,308	05/13/03	Nagano et al.	324	230	03/27/01	
K.N.	6,587,744	07/01/03	Stoddard et al.	700	121	06/20/00	
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EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						Yes	No
K.N.	WO 01/11679	02/15/01	WIPO			X	
K.N.	WO 01/080306	10/25/01	WIPO			X	
OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)							
K.N.	Miller, G. L., D. A. H. Robinson, and J. D. Wiley. July 1976. "Contactless measurement of semiconductor conductivity by radio frequency-free-carrier power absorption." <i>Rev. Sci. Instrum.</i> , Volume 47, No. 7. pp. 799 - 805.						
K.N.	1999. "Contactless Bulk Resistivity/Sheet Resistance Measurement and Mapping Systems." www.Lehighton.com/fabtech1/index.html .						
K.N.	2000. "Microsense II Capacitance Gaging System." www.adetech.com .						
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K.N. <i>K. Nguyen</i>				08/20/04			

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OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)							
K.N.	El Chemali, Chadi et al. July/August 2000. "Multizone uniformity control of a chemical mechanical polishing process utilizing a pre- and postmeasurement strategy." <i>J. Vac. Sci. Technol.</i> Volume 18, No. 4. pp. 1287 - 1296.						
	March 5, 2001. "KLA-Tencor Introduces First Production-worthy Copper CMP In-situ Film Thickness and End-point Control System." http://www.kla-tencor.com/j/servlet/NewsItem?newsItemID=74 .						
	2002. "Microsense II - 5810: Non-Contact Capacitance Gaging Module." www.adetech.com .						
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	23 October 2003. PCT International Preliminary Examination Report from PCT/US01/24910.						
	"NanoMapper wafer nanotopography measurement by ADE Phase Shift." http://www.phase-shift.com/nanomap.shtml .						
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	"ADE Technologies, Inc. - 6360." http://www.adetech.com/6360.shtml .						
	"3D optical profilometer MicroXAM by ADE Phase Shift." http://www.phase-shift.com/microxam.shtml .						
K.N.	"NanoMapper FA factory automation wafer nanotopography measurement." http://www.phase-shift.com/nanomapperfa.shtml .						
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K.N.	5,901,313	05/04/99	Wolf et al.	395	682	09/02/97
	6,002,989	12/14/99	Shiba et al.	702	84	04/01/97
	6,094,688	07/25/00	Mellen-Garnett et al.	709	328	03/12/98
	6,340,602	01/22/02	Johnson et al.	438	7	02/12/01
	6,345,288	02/05/02	Reed et al.	709	201	05/15/00
	6,368,879	04/09/02	Toprac	438	5	09/22/99
	US-2002/0107604	08/08/02	Riley et al.	700	121	12/06/00
	6,470,230	10/22/02	Toprac et al.	700	121	01/04/00
	6,482,660	11/19/02	Conchieri et al.	438	7	03/19/01
K.N.	6,567,717	05/20/03	Krivokapic et al.	700	121	01/19/00

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K.N.	WO 99/59200	11/18/99	WIPO			X	
K.N.	WO 01/52319	07/19/01	WIPO			X	

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K.N.	Williams, Randy, Dadi Gudmundsson, Kevin Monahan, Raman Nurani, Meryl Stoller and J. George Shanthikumar. October 1999. "Optimized Sample Planning for Wafer Defect Inspection," <i>Semiconductor Manufacturing Conference Proceedings, 1999 IEEE International Symposium on Santa Clara, CA</i> . Piscataway, NJ. pp. 43 - 46.
K.N.	23 July 2003. Invitation to Pay Additional Fees and Communication Relating to the Results of the Partial International Search for PCT/US02/19116.
K.N.	01 August 2003. Written Opinion for PCT/US01/27406.
K.N.	20 August 2003. Written Opinion for PCT/US01/22833.
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<i>K. P. Hennig</i>	05/05/05

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INFORMATION DISCLOSURE CITATION IN AN APPLICATION (PTO-1449)				ATTY. DOCKET NO. 005916 USA/FPS/MMCS/MC		SERIAL NO. 09/998,384	
				APPLICANT Young Joseph PAIK			
				FILING DATE November 30, 2001		GROUP 2812 2823	
U.S. PATENT DOCUMENTS							
EXAMINER'S INITIALS	PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE	
K.N.	3,767,900	10/23/73	Chao et al.	235	151.1	06/23/71	
	3,920,965	11/18/75	Sohrwardy	235	150.1	03/04/74	
	4,368,510	01/11/83	Anderson	364	151	10/20/80	
	4,616,308	10/07/86	Morshedi et al.	364	159	12/02/85	
	4,663,703	05/05/87	Axelby et al.	364	148	10/02/85	
	5,347,446	09/13/94	Iino et al.	364	149	02/10/92	
	5,519,605	05/21/96	Cawfield	364	151	10/24/94	
	6,128,016	10/03/00	Coelho et al.	345	347	12/20/96	
	6,219,711	04/17/01	Chari	709	232	10/01/97	
	6,249,712	06/19/01	Boiquaye	700	31	09/25/96	
	6,278,899	08/21/01	Piche et al.	700	44	10/06/98	
	2001/0039462	11/08/01	Mendez et al.	700	45	04/02/01	
✓	2001/0040997	11/15/01	Tsap et al.	382	154	05/15/01	
K.N.	2002/0128805	09/12/02	Goldman et al.	703	2	12/26/00	
FOREIGN PATENT DOCUMENTS							
EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						Yes	No
K.N.	EP 1 067 757	01/10/01	Europe			X	
K.N.	WO 01/33277	05/10/01	WO			X	
K.N.	WO 02/31613 A2	04/18/02	WO			X	
K.N.	WO 02/31613 A3	04/18/02	WO			X	
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K.N.	Levine, Martin D. 1985. <i>Vision in Man and Machine</i> . New York: McGraw-Hill, Inc. pp. ix-xii, 1-58.						
K.N.	Pilu, Maurizio. September 2001. "Undoing Page Curl Distortion Using Applicable Surfaces." <i>IEEE International Conference on Image Processing</i> . Thessalonica, Greece.						
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K.N.	3,205,485	09/07/65	Noltingk	340	870.22	10/21/60
	3,229,198	01/11/66	Libby	324	233	09/28/62
	4,000,458	12/28/76	Miller et al.	324	24	08/21/75
	4,302,721	11/24/81	Urbanek et al.	324	226	05/15/79
	4,750,141	06/07/88	Judell et al.	364	550	11/26/85
	4,757,259	07/12/88	Charpentier	324	227	11/05/86
	4,938,600	07/03/90	Into	386	401	02/09/89
	5,283,141	02/01/94	Yoon et al.	430	30	03/05/92
	5,338,630	08/16/94	Yoon et al.	430	30	11/18/93
	5,485,082	01/16/96	Wisspeintner et al.	324	202	04/05/90
	5,497,381	03/05/96	O'Donoghue et al.	371	78	06/01/95
	5,511,005	04/23/96	Abbe et al.	364	552	02/16/94
	5,519,605	05/21/96	Cawfield	364	151	10/24/94
	5,526,293	06/11/96	Mozumder et al.	364	578	12/17/93
	5,541,510	06/30/96	Danielson	324	233	04/06/95
	5,546,312	08/13/96	Mozumder et al.	364	468.03	02/24/94
	5,553,195	09/03/96	Meijer	395	24	09/29/94
	5,602,492	02/11/97	Cresswell et al.	324	763	04/28/94
	5,617,023	04/01/97	Skalski	324	207.17	02/02/95
	5,627,083	05/06/97	Tounai	438	18	05/12/95
	5,642,296	06/24/97	Saxena	364	552	07/29/93
	5,646,870	07/08/97	Krivokapic et al.	364	578	02/13/95
	5,649,169	07/15/97	Berezin et al.	395	540	06/20/95
	5,654,903	08/05/97	Reitman et al.	364	551.61	11/07/95
	5,663,797	09/02/97	Sandhu	438	16	05/16/96
✓	5,665,199	09/09/97	Sahota et al.	438	14	06/23/95
K.N.	5,666,297	09/09/97	Britt et al.	364	578	05/13/94

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				APPLICANT Young Joseph PAIK			
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U.S. PATENT DOCUMENTS							
EXAMINER'S INITIALS	PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE	
K.N.	5,667,424	09/16/97	Pan	451	6	09/25/96	
	5,674,787	10/07/97	Zhao et al.	437	230	01/16/96	
	5,719,796	02/17/98	Chen	364	578	12/04/95	
	5,735,055	04/07/98	Hochbein et al.	33	554	04/23/96	
	5,761,064	06/02/98	La et al.	364	468.17	10/06/95	
	5,777,901	07/07/98	Berezin et al.	364	578	09/29/95	
	5,787,021	07/28/98	Samaha	364	552	12/18/95	
	5,787,269	07/28/98	Hyodo	395	500	09/19/95	
	5,825,913	10/20/98	Rostami et al.	482	4	07/18/95	
	5,857,258	01/12/99	Penzes et al.	29	846	05/12/94	
	5,910,846	06/08/99	Sandhu	356	381	08/19/97	
	5,943,237	08/24/99	Van Boxem	364	468.15	10/17/97	
	5,960,185	09/28/99	Nguyen	395	500.1	06/24/96	
	5,961,369	10/05/99	Bartels et al.	451	5	06/04/98	
	5,978,751	11/02/99	Pence et al.	702	179	02/25/97	
	6,017,771	01/25/00	Yang et al.	438	7	04/27/98	
	6,036,349	03/14/00	Gombar	364	578	07/26/96	
	6,064,759	05/16/00	Buckley et al.	382	154	11/06/97	
	6,072,313	06/06/00	Li et al.	324	230	06/17/97	
	6,097,887	08/01/00	Hardikar et al.	395	701	10/27/97	
	6,108,092	08/22/00	Sandhu	356	382	06/08/99	
	6,127,263	10/03/00	Parikh	438	637	07/10/98	
	6,136,163	10/24/00	Cheung et al.	204	198	03/05/99	
	6,141,660	10/31/00	Bach et al.	707	103	07/16/98	
	6,143,646	11/07/00	Wetzel	438	637	06/03/97	
✓	6,148,099	11/14/00	Lee et al.	382	149	07/03/97	
K.N.	6,148,239	11/14/00	Funk et al.	700	1	12/12/97	
EXAMINER K.N.				DATE CONSIDERED 08/22/04			

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K.N.	6,159,075	12/12/00	Zhang	451	8	10/13/99
	6,159,644	12/12/00	Satoh et al.	430	22	03/06/96
	6,161,054	12/12/00	Rosenthal et al.	700	121	09/17/98
	6,169,931	01/02/01	Runnels	700	97	06/29/98
	6,172,756	01/09/01	Chalmers et al.	356	381	12/11/98
	6,173,240	01/09/01	Sepulveda et al.	703	2	11/02/98
	6,191,864	02/20/01	Sandhu	356	503	02/29/00
	6,204,165	03/20/01	Ghoshal	438	619	06/24/99
	6,210,983	04/03/01	Atchison et al.	438	14	06/15/99
	6,214,734	04/10/01	Bothra et al.	438	692	11/20/98
	6,217,412	04/17/01	Campbell et al.	451	8	08/11/99
	6,222,936	04/24/01	Phan et al.	382	149	09/13/99
	2001/0001755	05/24/01	Sandhu et al.	451	5	12/29/00
	2001/0003084	06/07/01	Finarov	451	6	12/04/00
	6,246,972	06/12/01	Klimasauskas	703	2	05/27/99
	6,276,989	08/21/01	Campbell et al.	451	10	08/11/99
	6,280,289	08/28/01	Wiswesser et al.	451	6	11/02/98
	6,284,622	09/04/01	Campbell et al.	438	424	10/25/99
	6,287,879	09/11/01	Gonzales et al.	438	16	08/11/99
	6,290,572	09/18/01	Hofmann	451	5	03/23/00
	6,304,999	10/16/01	Toprac et al.	716	42	10/23/00
	2001/0030366	10/18/01	Nakano et al.	257	758	03/07/01
	6,307,628	10/23/01	Lu et al.	356	382	08/18/00
	6,314,379	11/06/01	Hu et al.	702	81	12/04/97
✓	2001/0039462	11/08/01	Mendez et al.	700	45	04/02/01
K.N.	6,320,655	11/20/01	Matsushita et al.	356	237.2	03/15/00

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GROUP
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EXAMINER'S INITIALS	PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
K.N.	2001/0042690	11/22/01	Talieh	205	118	12/14/00
	6,324,481	11/27/01	Atchison et al.	702	84	06/15/99
	6,334,807	01/01/02	Lebel et al.	451	6	04/30/99
	6,336,841	01/08/02	Chang	451	10	03/29/01
	2002/0032499	03/14/02	Wilson et al.	700	159	05/04/01
	6,360,133	03/19/02	Campbell et al.	700	115	06/17/99
	6,360,184	03/19/02	Jacquez	702	181	03/26/97
	6,368,883	04/09/02	Bode et al.	438	14	08/10/99
	6,368,884	04/09/02	Goodwin et al.	438	14	04/13/00
	6,379,980	04/30/02	Toprac	438	8	07/26/00
	6,388,253	05/14/02	Su	250	310	11/02/00
	2002/0058460	05/16/02	Lee et al.	451	5	09/14/01
	6,395,152	05/28/02	Wang	204	224	07/02/99
	6,397,114	05/28/02	Eryurek et al.	700	51	05/03/99
	6,405,096	06/11/02	Toprac et al.	700	121	08/10/99
	6,405,144	06/11/02	Toprac et al.	702	84	01/18/00
	2002/0070126	06/13/02	Sato et al.	205	640	09/19/01
	2002/0081951	06/27/02	Boyd et al.	451	56	02/20/02
	2002/0089676	07/11/02	Pecen et al.	356	630	04/26/00
	2002/0102853	08/01/02	Li et al.	438	692	12/20/01
	2002/0107599	08/08/02	Patel et al.	700	99	01/25/01
	6,435,952	08/20/02	Boyd et al.	451	72	06/30/00
	6,438,438	08/20/02	Takagi et al.	700	121	01/02/98
	2002/0113039	08/22/02	Mok et al.	216	92	02/16/01
	6,440,295	08/27/02	Wang	205	640	02/04/00
✓	2002/0127950	09/12/02	Hirose et al.	451	6	03/08/01
K.N.	6,455,937	09/24/02	Cunningham	257	762	03/17/99

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K.P. Cunningham

08/20/04

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K.N.	2002/0149359	10/17/02	Crouzen et al.	324	224	08/18/01
	6,479,902	11/12/02	Lopatin et al.	257	774	06/29/00
	6,479,990	11/12/02	Mednikov et al.	324	225	06/18/01
	2002/0185658	12/12/02	Inoue et al.	257	200	06/14/01
	2002/0193902	12/19/02	Shanmugasundram et al.	700	121	06/18/02
	2002/0197745	12/26/02	Shanmugasundram et al.	438	5	08/31/01
	2002/0197934	12/26/02	Paik	451	22	11/30/01
	2002/0199082	12/26/02	Shanmugasundram et al.	712	208	06/18/02
	6,503,839	01/07/03	Gonzales et al.	438	692	07/03/01
	2003/0020909	01/30/03	Adams et al.	356	326	04/09/01
	2003/0020928	01/30/03	Ritzdorf et al.	356	630	07/09/01
✓ K.N.	6,517,413	02/11/03	Hu et al.	451	6	10/25/00

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EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						Yes	No
K.N.	61-66104	04/04/86	Japan			X	
	3-202710	09/04/91	Japan			X	
	8-23166	01/23/96	Japan			X	
	9-246547	09/19/97	Japan			X	
	WO 98/05066	02/05/98	WIPO			X	
	10-34522	02/10/98	Japan			X	
	0 869 652	10/07/98	Europe			X	
	WO 99/09371	02/25/99	WIPO			X	
	0 910 123	04/21/99	Europe			X	
	0 932 194	07/28/99	Europe			X	
	WO 00/00874	01/06/00	WIPO			X	
✓ K.N.	2000-183001	06/30/00	Japan			X	

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K.N. [Signature]

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						Yes	No
K.N.	1 071 128	01/24/01	Europe			X	
	WO 01/18623	03/15/01	WIPO			X	
	WO 01/25865	04/12/01	WIPO			X	
	434103	05/16/01	Taiwan			X	
	436383	05/28/01	Taiwan			X	
	455938	09/21/01	Taiwan			X	
	455976	09/21/01	Taiwan			X	
	2001-284299	10/12/01	Japan			X	
	2001-305108	10/31/01	Japan			X	
	2002-9030	01/11/02	Japan			X	
	WO 02/074491	09/26/02	WIPO			X	
K.N.	2002-343754	11/29/02	Japan			X	

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INFORMATION DISCLOSURE
CITATION IN AN
APPLICATION
(PTO-1449)



ATTY. DOCKET NO.
005916
USA/FPS/MMCS/MC

SERIAL NO.
09/998,384

APPLICANT
Young Joseph PAIK


FILING DATE
November 30, 2001

GROUP
~~2812~~ 2823

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		APPLICANT Young Joseph PAIK	
		FILING DATE November 30, 2001	GROUP 2842 2823
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EXAMINER	<i>Phuong Nguyen</i>	DATE CONSIDERED	08/20/04


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			APPLICANT Young Joseph PAIK			
			FILING DATE November 30, 2001		GROUP 2812 2823	

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K.N.	5,844,554	12/01/98	Geller et al.	345	332	09/17/96

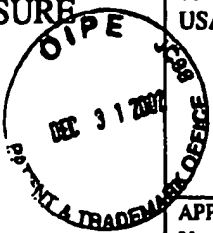
FOREIGN PATENT DOCUMENTS							
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K.N.	WO 95/34866	12/21/95	WO	/	/	X	
	WO 98/45090	10/15/98	WO			X	
	EP 0 881 040 A2	12/02/98	Europe			X	
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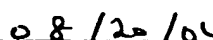
INFORMATION DISCLOSURE CITATION IN AN APPLICATION (PTO-1449)		ATTY. DOCKET NO. 005916 USA/FPS/MMCS/MC	SERIAL NO. 09/998,384
		APPLICANT Young Joseph PAIK	
		FILING DATE November 30, 2001	GROUP 2812 2823



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EXAMINER'S INITIALS	PUBLICATION / PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
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EXAMINER'S INITIALS	PUBLICATION / PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						Yes	No
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(PTO-1449)

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EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						Yes	No
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				APPLICANT Young Joseph PAIK			
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U.S. PATENT DOCUMENTS						
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EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						Yes	No
K.N.	61-171147	08/01/86	Japan	/	/		X
	6-184434	07/05/94	Japan				X
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EXAMINER <i>K. Hennig</i>	DATE CONSIDERED 08/20/04
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APPLICANT
Young Joseph PAIK

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	5,870,306	02/09/99	Harada	364	474.11	06/13/97
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						Yes	No
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U.S. PATENT DOCUMENTS							
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K.N.	6,240,330	05/29/01	Kurtzberg et al.	700	121	05/28/97	
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EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						Yes	No
K.N.	11-135601	05/21/99	Japan				X
	WO 00/05759	02/03/00	WO			X	
K.N.	WO 00/35063	06/15/00	WO			X	
OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)							
K.N.	July 5, 2001. "Motorola and Advanced Micro Devices Buy ObjectSpace Catalyst Advanced Process Control Product for Five Wafer Fabs." Semiconductor FABTECH. www.semiconductorfabtech.com/industry.news/9907/20.07.shtml						
	October 15, 2001. Search Report prepared by the Austrian Patent Office for Singapore Patent Application No. 200004286-1.						
	Johnson, Bob. June 10, 2002. "Advanced Process Control Key to Moore's Law." Gartner, Inc.						
	July 9, 2002. International Search Report prepared by the European Patent Office for PCT/US01/24910.						
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K.N.	Sonderman, Thomas. 2002. "APC as a Competitive Manufacturing Technology: AMD's Vision for 300mm." AEC/APC.						
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EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

INFORMATION DISCLOSURE CITATION IN AN APPLICATION (PTO-1449)				ATTY. DOCKET NO. 5916/FET/FET/DV		SERIAL NO. 09/998,384	
				APPLICANT Young Joseph PAIK			
				FILING DATE November 30, 2001		GROUP 2812 2823	
U.S. PATENT DOCUMENTS							
EXAMINER'S INITIALS	PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE	
K.N.	6,240,331	05/29/01	Yun	700	121	08/18/98	
	6,248,602	06/19/01	Bode et al.	438	14	11/01/99	
	6,252,412	06/26/01	Talbot et al.	324	750	01/08/99	
	6,263,255	07/17/01	Tan et al.	700	121	05/18/98	
	6,292,708	09/18/01	Allen et al.	700	121	06/11/98	
	6,298,274	10/02/01	Inoue	700	112	09/01/99	
	6,303,395	10/16/01	Nulman	438	52	06/01/99	
	6,345,315	02/05/02	Mishra	709	329	08/12/98	
	6,366,934	04/02/02	Cheng et al.	707	513	06/02/99	
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EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
K.N.	WO 00/79355 A1	12/28/00	WO	/	/	Yes	No
	2001-76982	03/23/01	Japan			X	X
	WO 01/33501 A1	05/10/01	WO			X	
OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)							
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K.N.				08/20/04			

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			APPLICANT Young Joseph PAIK			
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K.N.	4,796,194	01/03/89	Atherton	364	468	08/20/86	
	5,089,970	02/18/92	Lee et al.	364	468	10/05/89	
	5,108,570	04/28/92	Wang	204	192.3	03/30/90	
	5,220,517	06/15/93	Sierk et al.	364	550	08/31/90	
	5,236,868	08/17/93	Nulman	437	140	04/20/90	
	5,260,868	11/09/93	Gupta et al.	364	402	10/15/91	
	5,295,242	03/15/94	Mashruwala et al.	395	159	11/02/90	
	5,309,221	05/03/94	Fischer et al.	356	355	12/31/91	
	5,329,463	07/12/94	Sierk et al.	364	510	01/13/93	
	5,367,624	11/22/94	Cooper	395	157	06/11/93	
	5,398,336	03/14/95	Tantry et al.	395	600	06/16/93	
	5,402,367	03/28/95	Sullivan et al.	364	578	07/19/93	
	5,408,405	04/18/95	Mozumder et al.	364	151	09/20/93	
	K.N.	5,410,473	04/25/95	Kaneko et al.	364	43.06	12/16/92
	FOREIGN PATENT DOCUMENTS						
EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						Yes	No
K.N.	01-283934	11/15/89	Japan			X	
K.N.	2,050,247	08/29/91	Canada			X	
OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)							
K.N.	Dishon, G., D. Eylon, M. Finarov, and A. Shulman. "Dielectric CMP Advanced Process Control Based on Integrated Monitoring." Ltd. Rehoveth, Israel: Nova Measuring Instruments.						
K.N.	Runyan, W. R., and K. E. Bean. 1990. "Semiconductor Integrated Circuit Processing Technology." pg. 48. Reading, Massachusetts: Addison-Wesley Publishing Company.						
EXAMINER <i>Khieu Nguyen</i>				DATE CONSIDERED 08/20/04			

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U.S. PATENT DOCUMENTS

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K.N.	5,490,097	02/06/96	Swenson et al.	364	578	08/06/93
	5,495,417	02/27/96	Fuduka et al.	364	468	03/16/93
	5,497,316	03/05/96	Sierk et al.	364	140	04/04/95
	5,503,707	04/02/96	Maung et al.	156	626.1	09/22/93
	5,508,947	04/16/96	Sierk et al.	364	571.01	05/13/94
	5,629,216	05/13/97	Wijaranakula et al.	438	502	02/27/96
	5,657,254	08/12/97	Sierk et al.	364	571.05	04/15/96
	5,661,669	08/26/97	Mozumder et al.	364	552	06/07/95
	5,694,325	12/02/97	Fukuda et al.	364	468.28	11/22/95
	5,698,989	12/16/97	Nulman	324	719	09/13/96
	5,719,495	02/17/98	Moslehi	324	158.1	06/05/96
	5,740,429	04/14/98	Wang et al.	395	615	07/07/95
	5,751,582	05/12/98	Saxena et al.	364	468.16	09/24/96
	5,754,297	05/19/98	Nulman	356	381	04/14/97
K.N.	5,764,543	06/09/98	Kennedy	364	578	06/16/95

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EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						Yes	No
K.N.	2,165,847	08/29/91	Canada			X	
K.N.	2,194,855	08/29/91	Canada			X	

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

K.N.	Zorich, Robert. 1991. <i>Handbook of Quality Integrated Circuit Manufacturing</i> . pp. 464-498 San Diego, California: Academic Press, Inc.
K.N.	Rampalli, Prasad, Arakere Ramesh, and Nimish Shah. 1991. <i>CEPT—A Computer-Aided Manufacturing Application for Managing Equipment Reliability and Availability in the Semiconductor Industry</i> . New York, New York: IEEE.

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U.S. PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
K.N.	5,808,303	09/15/98	Schlagheck et al.	250	330	01/29/97
	5,838,595	11/17/98	Sullivan et al.	364	578	11/25/96
	5,883,437	03/16/99	Maruyama et al.	257	773	12/28/95
	5,910,011	06/08/99	Cruse	438	16	05/12/97
K.N.	6,054,379	04/25/00	Yau et al.	438	623	02/11/98

FOREIGN PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						Yes	No
K.N.	05-151231	06/18/93	Japan				X
	05-216896	08/27/93	Japan				X
	05-266029	10/15/93	Japan				X
	06-110894	04/22/94	Japan				X
	06-176994	06/24/94	Japan				X
	06-252236	09/09/94	Japan				X
	06-260380	09/16/94	Japan				X
	08-149583	06/07/96	Japan			X	
	09-34535	02/07/97	Japan			X	
	EP 0877308 A2	11/11/98	Europe			X	
	11-67853	03/09/99	Japan			X	
K.N.	1072967A3	11/21/01	Europe			X	

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K.N.	Moyne, James R., Nauman Chaudhry, and Roland Telfeyan. 1995. "Adaptive Extensions to a Multi-Branch Run-to-Run Controller for Plasma Etching." <i>Journal of Vacuum Science and Technology</i> . Ann Arbor, Michigan: University of Michigan Display Technology Manufacturing Center.
K.N.	Moyne, James, Roland Telfeyan, Arnon Hurwitz, and John Taylor. August 1995. "A Process-Independent Run-to-Run Controller and Its Application to Chemical-Mechanical Planarization." <i>SEMI/IEEE Advanced Semiconductor Manufacturing Conference and Workshop</i> . Ann Arbor, Michigan: The University of Michigan, Electrical Engineering & Computer Science Center for Display Technology & Manufacturing.


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APPLICANT Young Joseph PAIK					
FILING DATE November 30, 2001			GROUP 2812 2827		

U.S. PATENT DOCUMENTS						
EXAMINER'S INITIALS	PATENT APPLICATION NO.	FILING DATE	NAME	TITLE	CLASS	SUB-CLASS
K.N.	09/363,966	07/29/99	Arackaparambil et al.	Computer Integrated Manufacturing Techniques		
K.N.	09/469,227	12/22/99	Somekh et al.	Multi-Tool Control System, Method and Medium		
K.N.	09/619,044	07/19/00	Yuan	System and Method of Exporting or Importing Object Data in a Manufacturing Execution System		
K.N.	09/637,620	08/11/00	Chi et al.	Generic Interface Builder		
K.N.	09/656,031	09/06/00	Chi et al.	Dispatching Component for Associating Manufacturing Facility Service Requestors with Service Providers		

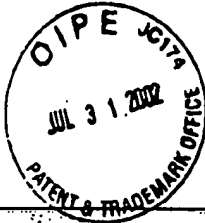
FOREIGN PATENT DOCUMENTS						
EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUB-CLASS	Translation
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K.N.	Zhou, Zhen-Hong and Rafael Reif. August 1995. "Epi-Film Thickness Measurements Using Emission Fourier Transform Infrared Spectroscopy—Part II: Real-Time <i>in Situ</i> Process Monitoring and Control." IEEE Transactions on Semiconductor Manufacturing, Vol. 8, No. 3.
K.N.	Telfeyan, Roland, James Moyne, Nauman Chaudhry, James Pugmire, Scott Shellman, Duane Boning, William Moyne, Arnon Hurwitz, and John Taylor. October 1995. "A Multi-Level Approach to the Control of a Chemical-Mechanical Planarization Process." Minneapolis, Minnesota: 42 nd National Symposium of the American Vacuum Society.
K.N.	Chang, E., B. Stine, T. Maung, R. Divecha, D. Boning, J. Chung, K. Chang, G. Ray, D. Bradbury, O. S. Nakagawa, S. Oh, and D. Bartelink. December 1995. "Using a Statistical Metrology Framework to Identify Systematic and Random Sources of Die- and Wafer-level ILD Thickness Variation in CMP Processes." Washington, D.C.: International Electron Devices Meeting.

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FILING DATE
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U.S. PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT APPLICATION NO.	FILING DATE	NAME	TITLE	CLASS	SUB- CLASS
K.N.	09/655,542	09/06/00	Yuan	System, Method and Medium for Defining Palettes to Transform an Application Program Interface for a Service		
	09/725,908	11/30/00	Chi et al.	Dynamic Subject Information Generation in Message Services of Distributed Object Systems		
	09/800,980	03/08/01	Hawkins et al.	Dynamic and Extensible Task Guide		
	09/811,667	03/20/01	Yuan et al.	Fault Tolerant and Automated Computer Software Workflow		
	09/927,444	08/13/01	Ward et al.	Dynamic Control of Wafer Processing Paths in Semiconductor Manufacturing Processes		
K.N.	09/928,473	08/14/01	Koh	Tool Services Layer for Providing Tool Service Functions in Conjunction with Tool Functions		

FOREIGN PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUB- CLASS	Translation Yes No



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K.N.	Dishon, G., M. Finarov, R. Kipper, J.W. Curry, T. Schraub, D. Trojan, 4 th Stambaugh, Y. Li and J. Ben-Jacob. February 1996. "On-Line Integrated Metrology for CMP Processing." Santa Clara, California: VMIC Speciality Conferences, 1 st International CMP Planarization Conference.
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K.N.	SEMI. [1986] 1996. "Standard for Definition and Measurement of Equipment Reliability, Availability, and Maintainability (RAM)." SEMI E10-96.

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U.S. PATENT DOCUMENTS							
EXAMINER'S INITIALS	PATENT APPLICATION NO.	FILING DATE	NAME	TITLE	CLASS	SUB- CLASS	
K.N.	09/928,474	08/14/01	Krishnamurthy et al.	Experiment Management System, Method and Medium		/	
↓	09/943,383	08/31/01	Shanmugasundram et al.	In Situ Sensor Based Control of Semiconductor Processing Procedure			
✓ K.N.	09/943,955	08/31/01	Shanmugasundram et al.	Feedback Control of a Chemical Mechanical Polishing Device Providing Manipulation of Removal Rate Profiles			
FOREIGN PATENT DOCUMENTS							
EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUB- CLASS	Translation Yes No	
OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)							
K.N.	Van Zant, Peter. 1997. <i>Microchip Fabrication: A Practical Guide to Semiconductor Processing</i> . Third Edition, pp. 472-478. New York, New York: McGraw-Hill.						
	Campbell, W. Jarrett, and Anthony J. Toprac. February 11-12, 1998. "Run-to-Run Control in Microelectronics Manufacturing." Advanced Micro Devices, TWMCC.						
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✓ K.N.	Khan, Kareemullah, Victor Solakhain, Anthony Ricci, Tier Gu, and James Moyne. 1998. "Run-to-Run Control of ITO Deposition Process." Ann Arbor, Michigan.						
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